SHEKHTMAN, Ya.L.

Radiobiological effect in wheat seeds as affected by dessication.
Biofizika 1 no.2:137-140 '56. (MLRA 9:9)

1.Institut biologicheskoy fiziki Akademii nauk SSSR, Moskva.
(SEEDS)-(WHEAT) (RADIATION--PHYSIOLOGICAL EFFECT)

Category : USSR/Nuclear Physics - Instruments and Installations. Methods of Measurement and Investigation C-2

Abs Jour : Ref Zhur - Fizika, No 2, 1957 No 3056

Author : Shekhtman, Ya.L., Radziyevskiy, G.B.
Inst : Institute of Biological Physics, Academy of Sciences USSR
Title : Reproduction of the "Roentgen" Unit for Gamma Rays with the Aid of an Extrapolation Camera.

Orig Pub : Biofizika, 1956, 1, No 3, 206-210

Abstract : Description of the construction of ionization chambers of the extrapolation type, suitable for reproducting a roentgen unit of gamma rays. It is noted that the chamber can serve for calibration of dosimeters.

Card : 1/1

SHEKHTAMN, Ya.L.

"Radiobiology; symposium." Z.Bacq, P.Alexander. Reviewed by Ya.L. Shekhtman. Biofizika 1 no.5:493-494 '56. (MLRA 9:10)
(RADIOBIOLOGY) (BACQ, Z.) (ALEXANDER, P.)

RADZIYEVSKIY, G.B.; SHEKHTMAN, Ya.L.

Formation of ice crystals in wheat grains during deep cooling [with English summary]. Koll.zhur.18 no.1:77-82 Ja-F '56. (MLRA 9:6)

1.Institut biofiziki AN SSSR, Laboratoriya biofiziki izlucheniy, Moskva.
(Wheat) (Plants, Effect of temperature on)

USSR / General Biology. Individual Development. Embryonic B Development.

Abs Jour : Ref Zhur - Biologiya, No 4, 1959, No. 14374

Author : Shikhobalova, N. P.; Shekhtman, Ye. L., Karmanova, Ye.

Inst : All-Union Institute of Helminthology

Title : The Study of the Effect of Ionized Radiation Upon the Larvae of Trichinella

Orig Pub : Byul. nauchno-tekhn. inform. Vses. in-ta gel' mintol., 1957, No 23-26

Abstract : Approximately 3 times fewer sexually mature individuals develop from the larvae of the Trichinella irradiated by a 2000-5000 r dose than from controls. From larvae irradiated with 6000-8000 r, some single individuals de-

Card 1/3

USSR / General Biology. Individual Development. Embryonic B Development.

Abs Jour : Ref Zhur - Biologiya, No 4, 1959, No. 14374

velop to full sexual maturity and with a higher dose, intestinal forms which began to develop from the organism before the 8th day after contamination. Intestinal Trichinellae irradiated with 2000 r developed in 1.5-2 smaller numbers than in the control. When irradiation doses of 1000 and 2000 r are used the amount of females exceeds approximately 2 times the amount of males and when 4000-6000 r doses are used by 3 and even by 5 times. The females developed from the irradiated larvae are often sterile and the nonsterile ones bear considerably fewer embryos than controls. In mice contaminated with irradiated larvae the number of muscular Trichinellae decreases

Card 2/3

SHEKHTMAN, Ya.L.

"Dose and biological effect of radiations" by B.Rajewsky. Reviewed by IA.L.Shekhtman. Biofizika 2 no.3:390-391 '57. (MLRA 10:8)
(RADIATION--PHYSIOLOGICAL EFFECT)

SHEKHTMAN, Ya.L., RADZIYEVSKIY, G.B., ZOTIKOV, A.A., GLAZUNOV, P.Ya.

Time-intensity factor in the bilogical action of fast electrons [with summary in English]. Biofizika 3 no.3:312-319 '58 (MIRA 11:6)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.
(RADIATION--PHYSIOLOGICAL EFFECT)

SHEKHMAN, Yu. L. and RATNER, T. F.

"Kinetics of Discoloration of a Water Solution of Methylene Blue Under the Action of X-rays" p.106

Trudy Transactions of the First Conference on Radiation Chemistry, Moscow, Izd-vo AN SSSR, 1958. 330pp.
Conference -25-30 March 1957, Moscow

SHEKHTMAN, Ya.L., PLOKHOY, V.I., FILIPPOVA, G.V.

Form of the dosage curve obtained in irradiating Escherichia coli with X rays and alpha rays of polonium [with summary in English]. Biofizika 3 no.4:479-486 '58 (MIRA 11:8)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.
(ESCHERICHIA COLI)
(X RAYS--PHYSIOLOGICAL EFFECT)
(ALPHA RAYS--PHYSIOLOGICAL EFFECT)

TRUDOVA, R.G., SHEKHTMAN, Ya.E.

Changes in the mitotic activity of root meristem in wheat seedlings following X irradiation [with summary in English]. Biofizika 3 no.4:519-521 '58 (MIRA 11:8)

1. Institut fiziologii rasteniy AN SSSR, Moskva (for Trudova),
2. Institut biologicheskoy fiziki AN SSSR, Moskva.
(PLANTS, EFFECT OF X RAYS ON)
(KARYOKINESIS)
(WHEAT)

SHEKHTMAN, Ya.L.

Scientific conference on the problem "Effect of ionizing radiations on the animal organism". Izv. AN SSSR. Ser.biol. no.6:758-760 N-D '58 (MIRA 11:11)

(RADIATION--PHYSIOLOGICAL EFFECT)

SHIKHOBALOVA, M.P.; VASIL'KOVA, Z.G. [deceased]; SHEKHTMAN, Ya.L.

Studies on radio-sensitivity of eggs of Ascaris lumbricoides and Ascaris suum and the invasive capacity of the developing larvae [with summary in English]. Med.paraz. i paraz.bol. 27 no.5:566-571 S-O '58. (MIRA 12:1)

1. Iz gelmintologicheskoy laboratorii AN SSSR (dir laboratorii - akademik K.U.Skryabin) i Instituta malyarii, meditsinskoy parazitologii i gel'mintologii Ministerstva zdravookhraneniya SSSR (dir. instituta - prof. P.G. Sergiyev).

(ASCARIS,
lumbricoides & suum egg, eff. of radiations on larvae (Rus))
(RADIATIONS, eff.
on Ascaris lumbricoides & suum eggs, invasive capacity of larvae (Rus))

SHEKHTMAN, Ya.L.

Primary mechanism of biological action of radiation. Izv. AN SSSR.Ser.biol. no.2:172-185 Mr-Ap '59. (MIRA 12:5)

1. Institute of Biological Physics, Academy of Sciences of the U.S.S.R, Moscow.
(RADIATION--PHYSIOLOGICAL EFFECT)

PHASE I BOOK EXPLOITATION SOV/5628

Akademiya nauk SSSR. Institut biologicheskoy fiziki

Rol' perekisey i kisloroda v nachal'nykh stadiyakh radiobiologicheskogo effekta (Role of Peroxides and Oxygen During Primary Stages of Radiobiological Effects) Moscow, 1960. 157 p. 4,500 copies printed.

Responsible Ed.: A. M. Kuzin, Professor; Ed. of Publishing House: K. S. Trincher; Tech. Ed.: P. S. Kashina.

PURPOSE : This collection of articles is intended for scientists in radiobiology and biophysics.

COVERAGE: Reports in the collection deal with the role of peroxides and oxygen in the primary stages of a radiobiological effect. They were presented and discussed at a symposium held December 25-30, 1958, organized by the Institut biofiziki AN SSSR, (Institute of Biophysics, AS USSR). Twenty-eight Moscow scientists, radiobiologists, radiochemists, physicists, and

Card 1/5

physical chemists took an active part in the symposium. Between the time of its conclusion and the publication of the present book some of the materials were expanded. In addition to the authors the following scientists participated in the discussion: L. A. Tummerman, V. S. Tongur, G. M. Frank, Yu. A. Kriger, E. Ya. Grayevskiy, N. N. Demin, B. N. Tarusov, and I. V. Vereshchenskiy. References follow individual articles.

TABLE OF CONTENTS:

AVAILABLE: Library of Congress

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JA/dfk/jw
10-6-61

SHEKHTMAN, Ya.I. (Chernyakhovsk)

Division of dyshydrotic epidermophytosis of the foot into stages.
Vest.derm.i ven. [35] no.2:50-53 F '61. (MIRA 14:3)
(RINGWORM) (FOOT--DISEASES)

SHERMAN, V.A.

Effect of Radiation on Deoxynucleoproteins *in vitro* and *in vivo*

Ya. L. Shleibman, T. V. Moiseenko, G. V. Filippova and L. D. Vinogradova

The effect of ionizing radiations on deoxynucleoproteins (DNP) was studied both during the irradiation of cells and during the irradiation of DNP isolated from non-irradiated cells. The nucleoprotein was isolated from lysozyme preparations of *B. coli*, from the sperm of *Mixocanus fossilis*, and from homogenates of mouse spleen. As a criterion of the radiation effect the authors used the test described by other workers, namely, the decomposition of the nucleoprotein complex on incubation with trypsin and the separation of free DNA from the precipitate. It was established that (1) the separated DNP is highly radiosensitive; a dose of 1000 r yields considerable changes in DNP from *B. coli*. This effect is apparently unrelated to the activation of the DNA-ase. (2) When bacterial cells were irradiated and the DNP was later isolated and investigated, the radiosensitivity was found to be lower by two orders of magnitude compared with that of the isolated DNP. (3) Sperm heads of *M. fossilis* were found to be highly radioresistant when using the same test.

These data are interpreted as follows: DNP in the organism is in a highly concentrated state, and during the irradiation of a living cell only the direct action of radiation takes place. On the other hand when a nucleoprotein is irradiated *in vitro*, we have to deal mostly with the indirect effect of radiation via the formation of active radicals in water. This problem requires further study.

Biophysical Institute of the Academy of Sciences of the USSR, Moscow

report presented at the 2nd Intl. Congress of Radiation Research, Harrogate/Yorkshire, Gt. Brit. 5-11 Aug 1962

Reactivation of Yeast Cells of Various Ploidy Irradiated with Alpha Particles

V. I. Korogodin, V. Bilecki, L. I. Markova
and Ya. L. Shechtman

The possibility of reactivation of radiation injury caused by polonium alpha-particles was investigated on ten yeast strains of various ploidy (from one to six chromosome sets). The survival curves for haploid cells had an exponential form, whereas the survival curves for cells of higher ploidy had a sigmoid form.

When yeast cells with two or more genomes were incubated after irradiation at 30°C in a nutrient medium, the survival rate increased substantially. The reactivation processes were virtually fully completed within 24 hr. The radiation injury to haploid cells was irreversible, just as in the case of γ-irradiation. In the case of one diploid strain (Megri 139 B) the degree of reversibility of a radiation injury caused by alpha particles was the same as the degree of reversibility of the lethal effects of γ-irradiation (about 60% of the given dose). The survival curve of reactivated cells was less curved.

The authors interpret their results on the basis of the hit theory. The lethal effect of alpha radiation on yeast with two or more genomes is caused by injury to several (in each cell) spatially separated elementary biological units, comparable in size with protein molecules. The injury to a large proportion of such elementary structures is potentially reversible.

Department of Biophysics, Faculty of Soil Biology of the Moscow State University and Biophysical Institute of the Academy of Sciences of the USSR, Moscow

(Session continued on next page)

report presented at the 2nd Intl. Congress of Radiation Research, Harrogate/Yorkshire, Gt. Brit. 5-11 Aug 1962

S/205/63/003/001/009/029
E028/E185

AUTHORS: Korogodin V.I., Bilushi V., Markova L.I., and Shekhtman Ya.L.

TITLE: Restoration of the viability of yeast cells of varying ploidy after irradiation with α-particles

PERIODICAL: Radiobiologiya, v.3, no.1, 1963, 39-44

TEXT: The cells of 12 strains of yeast of varying ploidy were irradiated in thin layers with α-particles and were then tested for viability by plating out on wort-agar. The sources of radiation used were ^{239}Pu, giving a dose of 50 rad/min at a distance of 13 mm from the surface, and ^{210}Po giving at 8 mm a dose of 10 200 rad/min. Irradiation was continued for periods ranging from a few minutes to several hours, and was carried out at 1 - 2 °C and at room temperature. The results showed that the $LD_{\alpha}10$ was dependent on ploidy, the haploid strain being the least and the diploid strain the most radioresistant. With the higher ploidy up to 6 radioresistance declined in one set of strains (Mortimer), but increased in a set obtained from another source

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(Ephrussi). Recovery from the effect of irradiation was observed with strains of ploidy 2 or greater, but not with haploid strains. Thus, 26% of the cells of a diploid strain were viable immediately after irradiation in a dose of 16.2 krad, but after maintenance on plain agar this proportion rose to 76% after 24 hours and 93% after 48 hours. It was also shown that the restoration does not depend on the kind of radiation (X, α or γ particles) producing the injuries. There are 4 figures and 3 tables.

ASSOCIATION: Institut meditsinskoy radiologii AMN SSSR (Institute of Medical Radiology of the Academy of Medical Sciences USSR); OBNINSK; Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova (Moscow State University imeni M.V. Lomonosov); Institut biologicheskoy fiziki AN SSSR, Moskva (Institute of Biophysics AS USSR, Moscow)

SUBMITTED: March 30, 1962

SHEKHTMAN, Ya.L.; FILIPPOVA, G.V.; RADZIYEVSKIY, G.B.

Radiosensitivity of Escherichia coli as related to the method of cultivation and the conditions of the medium during X-ray and alpha-ray irradiation. Radiobiologiia 3 no.1:34-38 '63.
(MIRA 16:2)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.
(ESCHERICHIA COLI) (RADIATION--PHYSIOLOGICAL EFFECT)

SHEKHTMAN, Ya.L.

Direct and indirect effect of radiation on biological systems.
Trudy MOIP. Otd. biol. 7:9-14 '63. (MIRA 16:11)

SHNEYDMAN, Ya.L.; VINOGRADOVA, I.D.; MOISEYENKO, V.V.

Effect of oxygen on the action of radiation on DNA. Radiobiologiia 4 no.4:473-475 '64. (MIRA 17:11)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.

SHEKHTMAN, Ya.P.

Classification of epidermophytosis of the foot. Vest.derm.i ven. 35 no.5:49-50 '62. (MIRA 15:5)
(DERMATOMYCOSIS) (FOOT--DISEASES)

SHEKHTMAN, Ye.D.

Using data of vertical atmospheric soundings in diagnosing and prognosing vertical currents. Trudy KazNIGMI no.10: 31-36 '59. (MIRA 13:4)
(Weather forecasting)

SHEKHTMAN, Ye.D.

Humidity forecasts. Trudy KazNIGMI no.11:145-151 '59. (MIRA 13:6)
(Humidity)

SHEKHTMAN, Ye.D.

High-altitude pressure field predictions. Trudy KazNIGMI no.15: 27-31 '60. (MIRA 14:1)
(Weather forecasting) (Atmospheric pressure)

SHEKHTMAN, Ye.D.

Effect of the mountain massifs of southeastern Kazakhstan on the dynamics of atmospheric processes. Trudy KazNIGMI no.15:32-40 '60. (MIRA 14:1)

(Kazakhstan--Meteorology) (Mountains)

SHEKHTMAN, Ye.D.

Synoptic meteorological conditions resulting in the formation of low clouds in Alma-Ata. Trudy KazNIGMI no.15:41-53 '60.
(MIRA 14:1)

(Alma-Ata---Clouds)

29878
S/169/61/000/009/033/056
D228/D304

3.5110 (1114)

AUTHOR: Shekhtman, Ye. D.

TITLE: The question of forecasting the pressure field at great heights

PERIODICAL: Referativnyy zhurnal. Geofizika, no. 9, 1961, 43, abstract 9B304 (Tr. Kazakhsk. nauchno-issled. gidrometeorol. in-ta, no. 15, 1960, 27-31)

TEXT: The question is considered of forecasting the height of the 300 mb isobaric surface by hydrodynamic methods which take vertical currents into account. The solution of N. I. Buleyev and G. I. Marchuk is taken as the prognostic formula:

$$\left(\frac{\partial z}{\partial t}\right)_{av} = - \frac{r_o}{4} \left\{ \frac{1^2}{g} \frac{\overline{\partial_\tau}}{\partial p} - \frac{g}{l} \overline{(z, \nabla^2 z)} - \beta \frac{\partial z}{\partial x} \right\}$$

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The question of...

Here, ∇^2 is the Laplace operator and τ is the analog of vertical velocity in the system x, y, p, t. It is suggested that $\partial\tau/\partial p$ defines the humidity field, the possibility of which is proved by the equation for moisture transfer under adiabatic conditions. The prognostic formula for the height of the 300 mb surface, which takes into account the correlation

$$\frac{\partial z_{300}}{\partial t} = \frac{\partial z_{700}}{\partial t} + \frac{\partial z^{300}_{700}}{\partial t}$$

is written for $t = 24$ hr., $z = 10$ m, and x and $y = 1000$ km;

$$\frac{\partial z_{300}}{\partial t} = 2.1 \cdot 10^{-2} (z,B) - b \frac{\partial \tau}{\partial p} + \frac{\partial z^{300}_{700}}{\partial t}$$

where B is the Buleyev function and $b = 4/r_o^2$. The qualitative analysis

Card 2/3

The question of...

of the change in the heights of the 300 mb surface was made by this formula. It was found that in 80% of the cases the sign of the change in altitude coincided with the sign of the last member of the right part. [Abstracter's note: Complete translation.]

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S/169/61/000/009/034/056
D228/D304

AUTHOR: Shekhtman, Ye. D.

TITLE: Influence of the mountainous massifs of southeastern Kazakhstan on the dynamics of atmospheric processes

PERIODICAL: Referativnyy zhurnal. Geofizika, no. 9, 1961, 43, abstract 9B305 (Tr. Kazakhsk. nauchno-issled. gidrometeorol. in-ta, no. 15, 1960, 32-40)

TEXT: By analysis of equations in which the forces of viscosity are calculated, an attempt is made to explain the influence of the mountainous massifs of southeastern Kazakhstan on the variation of the main meteorologic elements. The condition of adhesion

$$\left.\begin{aligned} u = v = 0 \\ \tau = g\rho_\xi \left(\frac{\partial z}{\partial t}\right)_\xi \end{aligned}\right\} \quad \text{when} \quad p = p_\xi \ (x, y)$$

(mountain equation)

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Influence of the...

is adopted for the atmosphere's lower boundary, and the condition

$$\left.\begin{array}{l}\tau = 0 \\ u^2 + v^2 < \infty\end{array}\right\} \quad \text{when} \quad p \to 0$$

is taken for its upper boundary. The atmosphere is divided into two layers--the layer of friction and the free atmosphere--the value of the vertical velocity at the upper boundary of the layer of friction being taken as the boundary condition for the free atmosphere. The formulas for the vertical velocity and for the change in the altitude and temperature are found from the method of N. I. Buleyev and G. I. Marchuk (see Referativ. zh., geofiz., 1961, 6B220), but they take into account the orography. All three values appear to depend on Δz_ξ. When $\Delta z_\xi > 0$ (a cyclonic vortex) the influence of the mountains leads to the orographic growth of the pressure, to ascending movements, and to the fall of the temperature; when $\Delta z_\xi < 0$ (an anticyclonic vortex) it leads to the

Card 2/3

20358 S/124/61/000/007/030/044
A052/A101

3,5000

AUTHOR: Shekhtman, Ye. D.

TITLE: Utilization of data of the vertical atmosphere sounding for the diagnosis and prognosis of vertical currents

PERIODICAL: Referativnyy zhurnal, Mekhanika, no. 7, 1961, 88, abstract 7B579 ("Tr. Kazakhsk. n.-i. gidrometeorol. in-ta", no. 10, 1959, 31-36)

TEXT: A method of analyzing vertical movements in the atmosphere by the humidity field is proposed. As an initial equation for determining the vertical velocity, the equation of vapor transfer is taken, which by means of the equation of continuity

$$\frac{\partial u}{\partial x} + \frac{\partial v}{\partial y} + \frac{\partial w}{\partial z} = 0 \quad (1)$$

is written down in the following form:

$$\frac{\partial a}{\partial t} + \frac{\partial au}{\partial x} + \frac{\partial av}{\partial y} + \frac{\partial aw}{\partial z} = \frac{\partial}{\partial z} k \frac{\partial a}{\partial z} \quad (2)$$

(a - absolute humidity, u and v - horizontal components of wind velocity, w - vertical velocity, k - turbulence coefficient). By integrating equation (2)

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28358 S/124/61/000/007/030/044
A052/A101

Utilization of data of the vertical ...

over height the author derives an expression for the vertical velocity on the level z; this expression is then used for qualitative conclusions. For this purpose the expression is reduced to a form convenient for the qualitative analysis. Instead of absolute humidity, the dew point and deficit of the dew point are introduced; for changes of the coefficient of turbulence with the height the Yudin-Shvets model is used (Yudin, M. I., Shvets, M. Ye., Tr. Gl. geofiz. observ. no. 613, 1940). The author makes an attempt to substantiate the method of shower and storm forecast proposed by R. S. Golubov (Tr. Kazakhsk. n.-i. gidrometeorol. in-ta, no. 10, 1959). There are 5 references.

V. Bykov

[Abstracter's note: Complete translation]

Card 2/2

SHEKHTMAN, Ye.D.

Synoptic atmospheric conditions of the formation of precipitation during the cold part of the year in the piedmont regions of Kazakhstan. Trudy KazNIGMI no.14:3-42 '61. (MIRA 15:2)
(Kazakhstan--Precipitation (Meteorology))

GOLUBOV, R.S.; SHEKHTMAN, Ye.D.

Synoptic method of determining the average wind in the 0-12 km. layer. Trudy KazNIGMI no.21:73-76 '64. (MIRA 17:11)

SHEKHTMAN, Ye.M.

Helminthiasis in pregnancy and its therapy with hexylresorcinol. Akush. i gin. no.3:74-77 My-Je '54. (MLRA 7:8)

1. Iz rodil'nogo doma Leninskogo rayona Leningrada (glavnyy vrach A.I.Galaktionov, nauchnyy rukovoditel' prof. G.A.Baksht) i gel'mintologicheskogo otdela TSentral'noy malyariynoy stantsii (zav. R.M.Soboleva)

(HEXYLRESORCINOL, therapeutic use,
*helminth infect. in pregn.)
(PREGNANCY, complications,
*helminth infect., ther., hexylresorcinol)
(HELMINTH INFECTIONS, in pregnancy,
*ther., hexylresorcinol)

SHEKHTMAN, Ye.M.

Helminths among the inhabitants of Petrovskiy District, Karelian A.S.S.R. Med.paraz. i paraz.bol.supplement to no.1:73-74 '57. (MIRA 11:1)

1. Iz parazitologicheskogo otdela Leningradskoy gorodskoy sanitarno-epidemiologicheskoy stantsii
(PETROVSKIY DISTRICT (KARELIA)--WORMS, INTESTINAL AND PARASITIC)

[illegible], Ye.M., Cand Med Sci -- (diss) "Helminthoses of pregnant women and their treatment." Len, 1958, 16 pp (Min of Health USSR. Len Sanitary Hygiene Med Inst. Chair of Obstetrics and Gynecology LSGMI) 200 copies (KL, 23-58, 11[illegible])

SHEKHTMAN, Ye.M.

Helminthiasis in pregnancy and their treatment. Sov.med. 22 no.3:79-83 Mr '58. (MIRA 11:4)

1. Iz kafedry akusherstva i ginekologii (zav. - prof. M.A.Petrov-Maslakov) Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta i parazitologicheskogo otdela (zav. R.M.Soboleva) Leningradskoy gorodskoy sanitarno-epidemiologicheskoy stantsii.

(PREGNANCY, compl.
helminthiases, ther., antihelmintics (Rus))
(HELMINTH INFECTIONS, in pregn.
ther., antihelmintics (Rus))

SHEKHTMAN, Yu. M. PA 27T90

USSR/Physics Dec 1946
Jets
Flow, Fluid

"The Problem of the Effect of the Ambient Medium on the Stability of a Liquid Jet," Yu. M. Shekhtman, 9 9 pp

"Iz Ak Nauk, Otd Tekh Nauk" No 11

Mathematical discussion on the behavior of a liquid jet flowing from a nozzle at various pressures, and influence of the surrounding medium on the stability of the stream.

ID 27T90

SHEKHTMAN, YU. M.

FA 45/49T103

USSR/Physics Mar 49
Filtration
Suspensions

"Filtration of Low-Concentrate Suspensions," Yu. M. Shekhtman, Inst of Mech, Acad Sci USSR, 11 pp

"Iz Ak Nauk SSSR, Otdel Tekh Nauk" No 3

Assumes that one of the unknown functions-- variability of suspension concentration δ --is already well known due to past studies. Suggested method permits theoretical and experimental solution of problems on movement of

45/49T103

USSR/Physics (Contd) Mar 49

low-concentrate suspensions in a porous medium. General graph shows absorption process of a porous body under conditions of a known value for δ. Submitted by Acad L. S. Leybenzon, 11 Nov 48.

45/49T103

Shekhtman, Yu. M., "Determining the Combined Concentration of Suspensions During Filtration." Inzhenernyy Sbornik, Vol V, No 2, 1949.

SHEKHTMAN, YU. M. 158T43

USSR/Geology - Oil Sands
Flooding

Mar 50

"Problem of Calculating the Clogging of Sand Filters and the Oil-Bearing Beds," Yu. M. Shekhtman, Inst of Mech, Acad Sci USSR, 11 pp

"Iz Ak Nauk SSSR, Otdel Tekh Nauk" No 3

Presents approximate methods for design of water-supply filters and laboratory and field procedures for acquisition of "flooding" data. Submitted 1 Nov 49 Acad L. S. Leybenzon.

158T43

USSR/Physics - Filtration
Suspensions

Apr 50

"Solution, in Closed Form, of the Problem on the Filtration of Small-Concentration Suspensions," Yu. M. Shekhtman, Inst of Mech, Acad Sci USSR, 7 pp

"Iz Ak Nauk SSSR, Otdel Tekh Nauk" No 4

Volumetric concentration of suspension δ is expressed thus: $\delta = \delta_0 \cdot e^{-kU}$, where δ_0 is volumetric concentration of suspension at boundary (near intake into structure) and assumed to be constant; k is parameter characterizing nature of porous medium and suspension. U is dimensionless variable complex, namely $U = \frac{x}{q(t)t}$ (where q(t) is total flux of fluid and solid phases through unit surface of porous medium, and possesses dimension of velocity L/T). Basic equation of filtration of small-concentration suspensions is in form: $q(t)\frac{\partial \delta}{\partial x} = f_0 \frac{\partial p}{\partial t}$, where f_0 is initial porosity of filtering medium. Present work involves this equation after finding "engineering" expression for $\frac{\partial \delta}{\partial x}$ (gradient of volumetric concentration of suspension) by dimensional analysis. Submitted 1 Nov 49 by Acad L. S. Leybenzon.

159T80

SHEKHTMAN, Yu, M.

USSR/Engineering - Hydraulics Jun 51

"Concerning Determination of Volume Concentration of Suspension in the Process of Filtration," Yu. M. Shekhtman, Inst of Mech, Acad Sci USSR

"Iz Ak Nauk SSSR, Otdel Tekh Nauk" No 6, pp 839-843

Analyzes and corrects 2 functions given by author in his previous works, published in "Inzhenernyy Sbornik" Vol V, No 2, 1949 under similar title and in "Iz Ak Nauk SSSR, Otdel Tekh Nauk" No 3, 1950 under title "Concerning Calculation of Silting of Sand Filters and Petroliferous Strata." Suggests method for more precise calcn of filters. Submitted by Acad A. I. Nekrasov. 20STP9

1. SHEKHTMAN, YU.M.

2. USSR (600)

4. Drainage

7. Method for computing silting of ground around a borehole when forcing low-concentration mixtures of a liquid with suspended solid particles, Izv. AN SSSR. Otd. tekh.nauk. no. 2, 1953.

9. Monthly List of Russian Accessions, Library of Congress, APRIL 1953, Uncl.

USSR/Engineering - Hydraulics FD-1117

Card 1/1 Pub. 41-11/13

Author : Shekhtman, Yu. M. Moscow

Title : A solution to the problem of filtration of a mixture of a fluid with solid particles in suspension with a discharge variable in time and a constant pressure drop.

Periodical : Izv. AN SSSR. Otd. tekh. nauk 5, 147-152, May 1954

Abstract : Present theoretical investigation of the problem of filtration of a mixture of fluid with solid particles in suspension in the case of a steady drop of pressure on the filtration zone. States this problem is useful in determining variation of filtration discharge during calculation of sedimentation in canals, earth dams, etc. for the purpose of decreasing their filtration capability. Graphs. Four references.

Institution :

Submitted : May 22, 1954

3241. Shekhtman, Yu. M., Determination of discharge of percolating fluid under conditions of silting (in Russian), *Doklady Akad. Nauk SSSR (N.S.)* 98, 3, 549–552, Oct. 1954.

Paper considers the problem of one-dimensional downward seepage through a layer of soil when the percolating water contains suspended matter. This results in silting. Constant head is assumed, and the pressure of emerging water is taken as atmospheric. As silting progresses, the coefficient of permeability decreases, being at all times the smallest at the top. Since the discharge, which decreases with time, must at any particular instant be the same at all levels, the continuous flow of water gets broken at some depth, below which the water divides into separate streams flowing under a unit gradient. The level at which this separation takes place moves gradually upward.

The solution of this complicated problem, utilizing the results of a previous investigation by the same author and requiring the use of successive approximations, is outlined, and some theoretical values are plotted in comparison with experimental ones obtained by a different investigator.

A. Hrennikoff, *Canada*

SHAKHTMAN, YU. M.

USSR/Engineering

Card 1/1 : Pub. 22 - 10/49

Authors : Shakhtman, Yu. M.

Title : Determination of used filtration liquid during colmation process

Periodical : Dok. AN SSSR 98/4, 549-552, Oct. 1, 1954

Abstract : A method, based on the method successive changes of stationary states and on the method of iterations, is described for determining the amount of filtration mixture used during the colmation process. Four references (1936-1953). Graphs.

Institute : Institute of Mechanics of the Acad. of Scs. of the USSR

Presented by : Academician A. N. Nekrasov, May 14, 1954

SHEKHTMAN, Yu. M.

USSR/Engineering - Filtration

Card 1/1 : Pub. 22 - 9/44

Authors : Shekhtman, Yu. M.

Title : Solution of the problem on the filtration of a liquid mixture with suspended solid-particles at a constant pressure and a variable consumption of the mixture

Periodical : Dok. AN SSSR 98/6, 917-920, October 21, 1954

Abstract : A method for determining the change in a filtrated mixture during variable consumption, $q = q(t)$; for determining the concentration of suspended particles, $\delta = \delta(x,t)$; and for determining the degree of filling pores by precipitated particles, $\zeta = \zeta(x,t)$, is explained. Four references (1952-1954). Graphs.

Institution : Institute of Mechanics of the Acad. of Scs. of the USSR

Presented by: Academician A. I. Nekrasov, May 14, 1954

SHEKHTMAN, Yuriy Markovich.

Inst of Mechanics, Acad Sci USSR. Academic degree of Doctor of Technical Sciences, based on his defense, 25 January 1955, in the Council of Moscow Order of Labor Red Banner Engineering Construction Inst imeni Kuybyshev, of his dissertation entitled: "Filtration of Low-Concentration Liquid Mixtures with Suspended Solid Particles."

Academic degree and/or title: Doctor of Sciences

SO: Decisions of VAK, List no. 14, 11 June 55, Byulleten' MVO SSSR, No. 15, Aug 56, Moscow, pp. 5-24, Uncl. JPRS/NY-537

[redacted], Yu. M.

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SHEKHTMAN, Yu. M.

N. V. Ornatskiy. Issledovaniye protsess kol'matatsii peskov (Investigation of the process of improving land by sand deposition, by) N. V. Ornatskiy, Ye. M. Sergeyev, i Yu. M. Shekhtman. Moskva, Izd-vo Moskovskogo Universiteta, 1955.

181 p. diagrs., graphs, tables.

Bibliography: 178-180.

PECHENKIN,S.K.; SHEKHTMAN,Yu., laborant (Kiyev)

Useful advice. Fiz. v shkole 15 no.5:66 S-O '55. (MLRA 9:1)

1. Kurbakinskaya srednyaya shkola Mikhaylovskogo rayona Kurskoy oblasti (for Pechenkin) 2. 123-ya shkola (for Shekhtman)
(Glass cutting) (Electric coils)

24-6-19/24

AUTHOR: Shekhtman, Yu. M. (Moscow).

TITLE: Investigation of the phenomenon of mechanical suffosion. (Issledovaniye yavleniy mekhanicheskoy suffozii).

PERIODICAL: "Izvestiya Akademii Nauk, Otdeleniye Tekhnicheskikh Nauk" (Bulletin of the Ac.Sc., Technical Sciences Section), 1957, No.6, pp.130-132 (U.S.S.R.)

ABSTRACT: Mechanical suffosion is defined as washing away by the seepage flow of fine fractions from the pores of the main skeleton of the soil. This process can be sub-divided into two stages, the initial one when a flow moves with speeds equalling the critical and there is an initial disturbance of the equilibrium of the fine particles which then assume a local mobility without being removed from the pores of the soil; the second stage when the seepage flow moves with speeds above the critical and fine particles are washed away so that they are removed partly or fully from the pore space. In this paper the second stage is considered. It is assumed that a unidimensional linear section of the porous medium consists of coarse particles (skeleton) and the pores between these particles are uniformly filled with fine solid particles (filler), the dimensions of which are considerably smaller than those of the pore. Until the instant of

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Investigation of the phenomenon of mechanical suffosion. (Cont.)

suffosion, such a mixture can be considered as being a uniform mass with a certain initial permeability coefficient and a certain initial saturation of the pore space by fine filler particles. If the pressure drop is below the critical, seepage will take place whereby the permeability coefficient will remain constant. If the pressure drop is increased to the critical value a certain displacement will be observed of fine particles but this will not result in an outflow of these fine particles from the pores. A still further rise in the pressure will bring about a removal of filler particles. The problem is investigated theoretically and the theoretical conclusions are verified by experimental results. On the basis of the results of Patrashev, A. N. (3), Istomina, V.S. (4) and Bochkov, N.M.(5) and those of the author, it is concluded that for removal of the particles from the pores to take place the following conditions have to be fulfilled: the diameter of the washed out particle must be smaller than the diameter of the pore canal through which the particle should move; the speed of movement of the liquid in the pore canal must be higher than the critical speed. The calculated values are compared with

Inflow of a liquid to a single vertical crack containing filling material. (Cont.)

24-7-23/28

for various positions of the crack relative to the well. On the basis of these assumptions formulae are derived for determining the components of the speed of filtration of liquid in the crack and also of the pressure along the crack and of the total flow rate. The calculations were carried out for a crack of constant width located symmetrically relative to the well. The use of the derived relations is illustrated by means of a numerical
2/2 example.
There are 3 figures and 3 references, 2 of which are Slavic.

SUBMITTED: December 24, 1955.

AVAILABLE:

SOV/24-58-6-28/35

AUTHOR: Shekhtman, Yu.M. (Moscow)

TITLE: Investigation of the Washing away of Small Particles of Earth by a Filtration Flow (Issledovaniye vymyva fil'tratsionnym potokom melkikh chastits grunta (suffoziya)

PERIODICAL: Izvestiya akademii nauk SSSR Otdeleniye tekhnicheskikh nauk, 1958, Nr 6, pp 137-139 (USSR)

ABSTRACT: The differential equations of the process are solved by the method of the successive replacement of stationary states, i e the period is broken into small time intervals in which the velocity of filtration and the velocity of the fuild in the pore channels can be assumed constant. As an example an experiment is described in which coarse sand was used. The pores of the coarse sand were

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Investigation of the Washing away of Small Particles of Earth by a Filtration Flow

filled with particles of fine sand. Calculated results show good agreement with those from the experiment.

There are 2 figures, 1 table and 3 Soviet references.

SUBMITTED: August 28, 1957

Card 2/2

SOV/93-58-12-9/16

14(5)

AUTHOR: Shekhtman, Yu.M., Kuranov, I.F., and Larin, A.A.

TITLE: Filtration in the Surrounding Zone of the Well During the Hydraulic Fracturning of Formations (Fil'tratsiya v prizaboynoy zone skvazhiny pri gidravlicheskom razryve plasta)

PERIODICAL: Neftyanoye khozyaystvo, 1958, Nr 12, pp 40-45 (USSR)

ABSTRACT: Yu. M. Shekhtman [Ref 1] presented a method for calculating the fluid influx into a sand-filled vertical fracture. The present article aims to verify and improve this method of calculation so as to facilitate its practical application. The authors take a vertical fracture which is symmetrically located in relation to the well and apply to it Shekhtman's formula for the condition at the end of the fracture. Assuming that a = -c and b = c they present the formula as follows

$$\frac{k'}{k} h V_x = \begin{cases} \pm 2\int_{-c}^{x} V_y dx + q(-c) & (-c \leq x \leq 0,\ y = \pm 0), \\ \pm 2\int_{c}^{x} V_y dx - q(c) & (0 \leq x \leq c,\ y = \pm 0), \end{cases}$$

where k' is the permeability factor of the sand filler, k - the permeability factor of the formation, h - the width of the fracture, 2c - the length of the fracture, q(-c) and q(c) - the fluid consumption at the ends of the fracture per unit of its height, V_x - the composite filtration rate along the ox axis, and V_y - the composite filtration rate at the oy axis.

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Next, they present Shekhtman's values of v_x and v_y as follows $v_x = \frac{1}{c \sin\theta} \sum_{n=2,4,6...} {}^{nA}_{n} \sin n\theta$, and $v_y = \frac{Q}{2\pi c \sin\theta} - \frac{1}{\pi \sin\theta} x \sum_{n=2,4,6...}^{\infty} nA_n \cos n\theta$, where Q is the fluid consumption of the fracture per unit of its height, θ - the auxiliary variable, and A_n - the coefficients which are to be determined. In order to determine the coefficients A_n Shekhtman's formula for the condition at the end of the fracture is converted and presented as follows

$$v_x = \begin{cases} \mp 2a \int_{-c}^{x} v_y dx + v_x(-c) & (-c \leq x \leq 0,\ y = \pm 0), \\ \mp 2a \int_{c}^{x} v_y dx + v_x(c) & (0 \leq x \leq c,\ y = \pm 0), \end{cases}$$

where $a = \frac{k}{\pi} - \frac{1}{\pi}$, $v_x(-c) = aq(c)$. By substituting Shekhtman's values of v_x and v_y in the last formula, integrating, replacing the variable x by c cos θ and dx by - c sin $\theta d\theta$, and introducing the indices

Filtration in the Surrounding Zone (Cont.)

$T = \frac{1}{ac} = \frac{\kappa'}{K}\frac{h}{e}$, $m = \frac{h}{2}$, $a_{2m} = \frac{A_{2m}}{Q}$, and $2T\sum_{m=1}^{\infty} m^2 a_{2m} = u(T)$,

We obtain

$$T\sum_{m=1}^{\infty} m a_{2m} \sin 2m\theta = \begin{cases} \left[u(T) + \frac{\theta}{2\pi} - \sum_{m=1}^{\infty} a_{2m} \sin 2m\theta\right] \sin\theta, \left(0 \leqslant \theta \leqslant \frac{\pi}{2}\right); \\ \left[u(T) - \frac{\theta}{2\pi} + \sum_{m=1}^{\infty} a_{2m} \sin 2m\theta\right] \sin\theta, \left(-\frac{\pi}{2} \leqslant \theta \leqslant 0\right); \\ \left[-u(T) - \frac{1}{2} + \frac{\theta}{2\pi} - \sum_{m=1}^{\infty} a_{2m} \sin 2m\theta\right] \sin\theta, \left(\frac{\pi}{2} \leqslant \theta \leqslant 0\right). \\ \left[-u(T) - \frac{1}{2} - \frac{\theta}{2\pi} + \sum_{m=1}^{\infty} a_{2m} \sin 2m\theta\right] \sin\theta, \left(-\pi \leqslant \theta \leqslant -\frac{\pi}{2}\right). \end{cases}$$

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In these equations the coefficients a_{2m} which depend only on T are the unknown, and it is difficult to determine their values directly from the last equation. By expanding into Fourier series both sides of the last equation and comparing the coefficients at trigonometric functions of an angle with the same multiplicity we obtain an infinite system of equations of the following form

$$-I a_{2l} + \frac{32}{\pi} \sum_{m=1}^{\infty} m F(m+l) F(m-l) a_{2m} = \frac{8}{\pi^2} [E(l)]^2,$$ where l is the number of the equation ($l = 1, 2, 3, \ldots$); and $F(x) = \frac{1}{4x^2-1}$.

Assuming that the series in the equation agrees with regard to l the number of equations is limited to $l = 1,2, \ldots, s$ and to the same number of unknown a_{2m} ($m = 1,2,\ldots,s$). The system of equations thus obtained is linear and can be solved without too much difficulty (Fig.2). Knowing the value of the coefficients a_{2m} it is possible to calculate the velocity potential, pressure, and fluid consumption with the aid of Shekhtman's formulas. The results were verified experimentally on a radical unit consisting of a test chamber (Fig 3), vacum chamber, and measuring instruments (Fig 4). The experimental results are presented graphically by Figs 5-7. It is suggested that the suffusion and silting of the filler sand can be eliminated by selecting sand of suitable properties [Ref 2]. The authors conclude that the theoretical data are in good

agreement with the experimental data and since the calculations were carried out with absolute values good agreement can also be expected in the theoretical and field data if the formation is uniform and the remaining properties are known. Therefore, this method for calculating the influx of fluid into vertical fractures is recommended for practical purposes. If the dimensions of the fractures are not measured directly, they can be obtained from the studies of S.A. Khristianovich, G. I. Barenblatt, and Yu. N. Zheltov [Ref 3-6]. The auxiliary graphs $a_{2m}(T)$ presented in this article simplify the calculation process so that it can be carried out in 1-2 hours. There are 7 figures and 6 Soviet references.

SOV/179-59-2-39/40

AUTHOR: Shekhtman, Yu. M. (Moscow)

TITLE: On the Filtration of a Liquid Carrying Suspended Hard Particles (O fil'tratsii zhidkosti, nesushchey vzveshennyye tverdyye chastitsy)

PERIODICAL: Izvestiya Akademii nauk SSSR OTN, Mekhanika i mashinostroyeniye, 1959, Nr 2, pp 205-207 (USSR)

ABSTRACT: Experiments were carried out in order to establish the relationship between the volumetric concentration of small, hard particles δ^* and their saturation ζ in the porous medium during a process of filtration. The resulting curve $\zeta(\delta^*)$ was obtained from the expression (1), and is illustrated in the figure on p 205 (ζ_o - maximum saturation of the porous medium with small particles). The value of ζ_o was found to be equal to 0.7 to 0.9 and that of a_o from 0.0005 to 0.0036. for small values of $\delta^* \ll a_o$ the expression (2) can be applied. The equation of equilibrium can be defined as Eqs (3) and (4)

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On the Filtration of a Liquid Carrying Suspended Hard Particles

(Ref 1) for the conditions defined by Eqs (5), (6) and (7). The intensity of the saturation ζ can be determined by Eqs (8) and (9), where α - kinetic coefficient. The solution of expressions (4) and (9) can be found when an assumption is made that a constant flow ($q(6) = q_0 = \text{const}$) takes the form of Eq (10). Then the system of equations (10) and (9) can be solved as Eqs (13) and (14) for the conditions Eqs (11) and (12). Similarly, the function $\zeta(x, t)$ is solved as Eq (15) for the conditions Eq (16), or as Eqs (18) and (19) by the method of conversion. There is 1 figure and there are 4 references, of which 3 are Soviet and 1 is English.

SUBMITTED: July 11, 1958.

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SOV/179-59-5-10/41

AUTHOR: Shekhtman, Yu.M. (Moscow)

TITLE: Inflow of Liquid to a Horizontal Axially Symmetrical Fissure with a Filling

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Mekhanika i mashinostroyeniye, 1959, Nr 5, pp 53-57 (USSR)

ABSTRACT: The paper is a continuation of earlier work (Ref 1 and 2). The flow of a liquid obeying Darcy's law is discussed, assuming the radius of the crack to be small so that the boundary of the stratum can be considered to be at infinity. By solving the differential equation governing the flow of liquid, expressions are derived for the radial and axial velocity components and for the total flow. The results are illustrated by a numerical example. There are 2 figures and 6 Soviet references.

SUBMITTED: June 25, 1959

Card 1/1

SHEKHTMAN, Yu.M. (Moskva)

Fluid flow to vertical crevices with fillers. Inzh. sbor. (MIRA 13:2)
25:197-207 '59.
(Fluid dynamics)

SHEKHTMAN, Yu. M. (Moscow)

"The Influx of Fluid Into A Crack Filled With Sand."

report presented at the First All-Union Congress on Theoretical and Applied Mechanics, Moscow, 27 Jan - 3 Feb 1960.

SHEKHTMAN, Yuriy Markovich; KURANOV, I.F., red. izd-va; MAKOGONOVA, I.A., tekhn. red.

[Filtration of low-concentration suspensions] Fil'tratsiia malokontsentrirovannykh suspenzii. Moskva, Izd-vo Akad. nauk SSSR, 1961. 210 p. (MIRA 14:6)
(Suspensions (Chemistry)) (Filters and filtration)

SHEKHTMAN, Yu.M. (Moskva)

Liquid flow toward a horizontal joint with a filler in case of finite dimensions of the stratum depth. Izv.AN SSSR.Otd.tekh.nauk. Mekh. i mashinostr. no.5:178-182 S-O '61. (MIRA 14:9)
(Hydrodynamics)

SHEKHTMAN, Yu.M. (Moskva)

Unsteady liquid flow to a horizontal drain with a filler.
Inzh.zhur. 1 no.3:169-172 '61. (MIRA 15:2)

1. Institut mekhaniki AN SSSR.
(Drainage)

KURANOV, I.F.; SHEKHTMAN, Yu.M.

Determining the yield of a well where there is horizontal fracturing with fill material. Neft. khoz. 39 no.9:37-39 S '61. (MIRA 15:1)

(Oil reservoir engineering)

SHEKHTMAN, Yu. M.

"The heat-convection problem with a porous material structure allowing for the influence of outflowing liquid or gas."

report submitted for 2nd All-Union Conf on Heat & Mass Transfer, Minsk, 4-12 May 1964.

Mechanics Inst, AS USSR.

SHEKHTMAN, Yu.M. (Moskva)

Problem of heat conductivity for the case of a disarrangement of structure taking into consideration the influence of outflowing gas. Inzh. zhur. 5 no.3:441-448 '65. (MIRA 18:7)

SHEKHTMEN, A.B.

Observations on cholesterol and its fractions in Botkin's disease.
Azerb. med. zhur. 40 no.5:[illegible] My '63. (MIRA 17:9)

SHEKHTMEYSTR, K., red.

[Work of teams of communist labor in printing plants in Moscow and Moscow Province] Ob opyte raboty brigad kommunisticheskogo truda v tipografskikh pechatnykh tsekhakh Moskvy i Moskovskoi oblasti: informatsionnyi sbornik. Moskva, Glavizdat M-va kul'tury RSFSR, 1961. 26 p. (MIRA 14:12)
(Moscow Province--Printing industry)

3(4) **PHASE I BOOK EXPLOITATION** SOV/2072

Moscow. Institut inzhenerov geodezii, aerofotos"yemki i kartografii

Trudy, vyp. 30 (Transactions of the Moscow Institute of Geodetic, Aerial Survey and Cartographic Engineers, Nr 30) Moscow, Geodezizdat, 1958. 95p. Errata slip inserted. 1,200 copies printed.

Editorial Board: A. I. Mazmishvili (Resp. Ed.), V. I. Avgevich (Deputy Resp. Ed.), G. V. Bagratuni, N. Ya. Bobir, N. N. Volkov, A. I. Durnev, S. V. Yeliseyev, P. S. Zakatov, G. P. Levchuk, N. I. Modrinskiy, M. D. Solov'yev, B. V. Fefilov, and F. F. Shokin.

PURPOSE: This collection of articles is intended for geodesists, photogrammetrists and cartographers.

COVERAGE: This issue is devoted primarily to problems in geo-

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desy. Individual articles on photogrammetry and cartography
are also included. The articles on geodesy treat: 1) the com-
putation of coordinat:: ==e sides in primary triangulation,
2) continuous operation electric computers for adjustments, 3)
solar eclipses as related to the figure of the Earth, 4) pro-
blems of the Earth's flattening, 5) surveys for construction
work, and others. On the subject of photogrammetry there are
articles on photo rectifier FTB and on the properties of silver
bromide. In cartography, the matter of problematical islands
in the Arctic is discussed. References accompany individual
articles.

TABLE OF CONTENTS:

Transaction of the Moscow Institute (Cont.) SOV/2072

AVAILABLE: Library of Congress

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7/16/59

Card 4/4

ALEKSANDROVICH, M.K.; KOZ'MINA, O.P.; SHEKHUNOVA, L.G.

Mechanism of the oxidation of cellulose ethers by oxygen. Part 13: Effect of organometallic complexes (chelate compounds) on the oxidation of cellulose ethers by oxygen. Vysokom.soed. 5 no.4: 496-498 Ap '63. (MIRA 16:5)

1. Institut vysokomolekulyarnykh soyedineniy AN SSSR.
(Cellulose ethers) (Chelates) (Oxidation)

MAZAROVICH, O.A.; SHEKHURA, I.I., red.

[Problems of the regional geology of the U.S.S.R.; collection of articles] Voprosy regional'noi geologii SSSR; sbornik statei. Moskva, Izd-vo Mosk. univ., 1964. 231 p. (MIRA 17:12)

1. Moscow. Universitet. Geologicheskiy fakul'tet.

SHEKHURDIN, Aleksey Pavlovich

[Selected works] Izbrannye sochineniia. Moskva, Izd-vo sel'khoz. lit-ry, zhurnalov i plakatov, 1961. 324 p.
(MIRA 15:3)

(Wheat)

VILYANSKIY, M.P., doktor med. nauk, otv. red.; POLUEKTOV, L.V., red.; SHEKHURDINA, K.I., zasl. vrach RSFSR, red.

[Materials from the scientific session of the Department of Facultry, Surgery, devoted to the surgical treatment of diseases of the blood vessels and the organs of the gastro-intestinal tract]Materialy nauchnoi sessii kafedry fakul'tetskoi khirurgii, posviashchennoi khirurgicheskomu lecheniiu zabolevanii krovenosnykh sosudov i organov zheludochno-kishechnogo trakta. Omsk, 1962. 56 p. (MIRA 15:9)

1. Omsk. Meditstsinskiy institut. Kafedra fakul'tetskoy khirurgii.
(BLOOD VESSELS—SURGERY) (ALIMENTARY CANAL—SURGERY)

IVLIYEV, Yakov Dmitriyevich; SHEKHURIN, Diodor Yefremovich; VERSHILOVA,N.A., red.; GVIRTS, V.L., tekhn.red.

[Organizing technical information and propaganda in research institutes] Organizatsiia tekhnicheskoi informatsii i propagandy v nauchno-issledovatel'skikh institutakh. Pod red.N.A.Vershilovoi. Leningrad, Leningr.dom nauchno-tekhn.propagandy, 1956. 42 p. (Bibliotechka rabotnikov po tekhnicheskoi informatsii i ratsionalizatsii, no.8) (MIRA 11:1)

(Technology--Information services)

SHEKHURIN, Diodor Yefremovich; KATS, Yakov L'vovich; PETROV, Petr Ivanovich; CHERNYAK, I.S., dotsent, red.; SHILLING, V.A., izd.red.; GVIRTS, V.L., tekhn.red.

[Participation of the section of scientific and technical information in the work of the scientific research institute] Uchastie otdela nauchno-tekhnicheskoi informatsii v razrabotkakh nauchno-issledovatel'skogo instituta. Leningrad, 1960. 27 p. (MIRA 14:1)
(Technology--Information services)

PETROVA, Zinaida Mikhaylovna; SHEKHUNIN, D.Ye., red.

[Providing information on the results of scientific research and experimental construction work] Sozdanie informatsii po rezul'tatam nauchnykh issledovanii i opytno-konstruktorskikh rabot. Leningrad, 1964. 29 p. (MIRA 18:1)

SHEKHURIN, Diodor Yefremovich; SHELIMOV, P., red.

[Ways of increasing the efficiency of the work of the information section of research institutes] Puti povysheniia effektivnosti raboty otdela informatsii NII. Leningrad, 1965. 23 p. (MIRA 18:10)

SHEKHURIN, Dimitriy Yefremovich; KATS, Ya.L., red.

[Coordinating functions of the information section of the main institute] Koordinatsionnye funktsii otdela informatsii golovnogo in tituta. Leningrad, 1964. 33 p.
(MIRA 17:9)

L 4C835-65 EWT(d)/EPA(s)-2/TDB(jj)/EEC(f)/BXT/EEC-2/EWP(1) Pq-4/Pg-4/Pk-4
IJP(c) BB/GG
ACCESSION NR: AP5008599 S/0315/65/000/002/0003/0006

42
B

AUTHOR: Shekhurin, D. Ye.

TITLE: The role of the Main Scientific Research Institute in the professional information system

SOURCE: Nauchno-tekhnicheskaya informatsiya, no. 2, 1965, 3-6

TOPIC TAGS: information center, documentation, data processing, information retrieval, library 16C

ABSTRACT: Information departments of the Golovnyy nauchno-issledovatel'skiy institut (Main Scientific Research Institutes (MSRI)), their role in a united professional information system, and the nature of their cooperation with professional information centers are discussed. Better results are expected from a reconstruction of the present MSRI information scheme: a change from the generalized professional information to the subdivision into various specialized professional fields. Presently, some information centers obtain their material by a direct contact with different institutions related to one profession; but because they do not have an adequate control over these organizations, only a part of the information concerning finished projects reaches their registers. It is recom-

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ACCESSION NR: AP5008599

mended that the responsibility relation among these organizations follows these lines: the Professional Information Center--MSRI--organizations dependent on MSRI. Every finished project will then be reported and recorded, which is important in the choice of topics and future trends in research determined by the MSRI. It is also recommended that three missing links in the united information system be organized: a data orientation fund, which will collect materials from the institutions dependent on the MSRI, an Information Department to pool both the material proceeding from different establishments which apply new MSRI inventions and the information coming from the related branches of a profession, and a Fund of Patent Literature. The main difficulty lies in the absence of any official agreement among the above organizations concerning the established data for the information report and the specification of mutual responsibilities. The author suggests the introduction of such agreements with a provision for a general outline of the information report; this outline should also include particular technical solutions obtained in the development of the main research theme.

ASSOCIATION: none

SUBMITTED: 10Nov64 ENCL: 00 SUB CODE: DP, GO

NO REF SOV: 000 OTHER: 000

Card 2/2 cg

SHEKHURINA, T.A.

Use of entomopathogenic micro-organisms in establishing infection foci at the wintering sites of Eurygaster integriceps. Trudy VIZR no.14:57-70 '60. (MIRA 14:2)
(Stavropol Territory—Eurygasters—Biological control)
(Micro-organism, Pathogenic)

SHEKHURINA, T.A.

Melanospora parasitica Tul. as a parasite of the fungus Beauveria bassiana (Bals.) Vuill. in Stavropol Territory. Bot. zhur. 45 no.4:606-608 Ap '60. (MIRA 14:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zashchity rasteniy, Leningrad.
(Vorontsova-Aleksandrovskoye District--Fungi, Pathogenic)

SHEKHURINA, T.A., mladshiy nauchnyy sotrudnik

Forecasting the multiplication of the cutworm Hadena sordida. Zashch. rast. ot vred. i bol. 7 no.11:46-47 N '62. (MIRA 16:7)

VOLKOV, V.G.; SHEKHVATOV, B.V.

The high-speed, acoustically-coupled, electronic telebathythermograph. Trudy Inst.okean. 24:215-226 '57. (MIRA 10:10)
(Oceanographic instruments)

S/194/61/000/011/034/070
D256/D302

AUTHOR: Volkov, V.G. and Shekhvatov, B.V.

TITLE: Application of FM-modulated information transmission in hydrological instrumentation

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 11, 1961, 58, abstract 11 V463 (Tr. In-ta okeanol. AN SSSR, 1960, 39, 10-24)

TEXT: For measurements of temperature, contents of salt, rates of flow and other quantities describing the state of water media, a variety of converters of non-electric quantities into electric ones is used, the parameters being transmitted by cables to the recording instruments by means of FM of the carrying frequency. A review is presented of various types of instruments, and the possibilities of frequency telemetry are considered, including its use for open sea measurements. [Abstracter's note: Complete translation]

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L 26640-65 EEC-4/EED-2/EEO-2/EWT(d)/EWT(l)/EEC(t)/FSS-2 Pm-4/Pn-4/Pr-4/
Pac-4 GW
ACCESSION NR: AT5002960 S/2566/64/075/000/0157/0170

AUTHOR: Shekhvatov, B. V.

TITLE: Hydracoustic communication system with pulse-time signal modulation

SOURCE: AN SSSR. Institut okeanologii. Trudy, v. 75, 1964. Avtomatizatsiya obrabotki massovykh materialov okeanologicheskikh nablyudeniy (Automation of processing the mass of materials of oceanological observations), 157-170

TOPIC TAGS: oceanology, hydroacoustic channel, telemetric information, signal modulation, pulse time modulation, Doppler effect salinity, resistance thermometer

ABSTRACT: The purpose of this study was to show that the existing cable system of communications used in deep-water explorations can be replaced by a more efficient hydroacoustic communication system with a pulse-time signal modulation. Although this system requires self-contained power-supplying units, its cost is reduced by the elimination of expensive cables and winches. The information reported by this communication system from the ocean depths to shipboard is fairly audible and distinct and can come through at a rate of one report per second. If the other instruments used are based on the sweep conversion principle, the

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receiving transmitting devices must be synchronized. A mutual synchronization of these devices by transmitting special synchronizing signals is inadmissible in this case since their shifting in space may lead to the Doppler effect. The experiments already carried out reveal that the new instruments using the pulse-time method of signal modulation are the most promising in connection with the development of a uniform telemetric system for oceanological instruments to be used in acoustic communication. Orig. art. has: 9 figures and 24 formulas.

ASSOCIATION: Institut okeanologii AN SSSR (Oceanology institute, AN SSSR)

SUBMITTED: 00 ENCL: 00 SUB CODE: ES, EC

NO REF SOV: 004 OTHER: 000

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